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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/411,629	10/01/1999	WATARU NARA	0557-4784-2	8585
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER TRAN, NHAN T	
			ART UNIT	PAPER NUMBER
			2615	
			DATE MAILED: 11/14/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/411,629

Applicant(s)

NARA, WATARU

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 8/22/2003 have been fully considered but they are not persuasive.

In the fourth paragraph on page 9, the Applicant asserts, "Ide fails to disclose or suggest that a black reference level is a moving average of the black reference values, as recited in independent claims 5 and 13, or that the black reference level for each line is obtained from moving-averaging the black reference values for the plurality of lines, as recited in independent claims 7 and 15."

In response, the Examiner respectfully disagrees with the Applicant. As shown in Fig. 11, col. 6, lines 52 – 58, Ide discloses that the clamp level calculation circuit 50 calculates an average of pixel data at every one line in the front end OB level detection area or the back end level detection OB level detection area in a light shielded area shown in Fig. 10, and calculates a clamp level on the basis of the average. Further in col. 9, lines 14 – 25, Ide discloses that though the clamp level of the first line is the reference level calculated from pixel data included in the line, each of the clamp levels at and after second line is weighted average level of a clamp level of a preceding line and a newly obtained reference level with the coefficient "k". In light of Ide's disclosed invention cited above and in the previous Office Action, it is clear that the black reference level (directly related to clamp level) is a moving average of the black reference values (values of OB data) of a preceding line and a newly obtained line (current line). Therefore, the

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claimed invention cited in claims 5 and 13 as well as claims 7 and 15 are anticipated by Ide for at least the reason stated above.

In response to applicant's argument (the fifth paragraph on page 10) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Also, In response to applicant's argument (the fifth paragraph on page 10) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this case, the Examiner respectfully disagrees with the Applicant and provides clarifications. In the previous Office Action, the Examiner cited col. 9, lines 52-60 in Irie reference, wherein Irie obviously suggests, "In the setting black reference value and white reference value, it is preferable to incorporate not only data corresponding to one line but also data corresponding to a plurality of predetermined lines, for example, eight lines by the line sensor CCD 26, find the average value data for each pixel...The reason for this is that the black reference and white reference value are stabilized by using the average value of the line data."

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The Examiner submits that the suggestion in Irie for incorporating data corresponding to a plurality of predetermined lines in calculations of black level would motivate some one skilled in the art to expand the teaching of Ide from calculating the black reference level from moving average of two lines to moving averaging of several lines including the current line and preceding lines as cited in claims 7 and 8 or claims 15 and 16. At least suggested by Irie as stated above, the combination of Ide and Irie is proper.

In view of the above, the Examiner believes that the interpretation of the present claimed invention does read on the cited references at least for the reasons discussed above and as stated in the following Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 5 – 7 & 13 – 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ide et al (US 6,304,292).

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Regarding claim 5, Ide discloses an image apparatus comprising:

photoelectrically converting means for photoelectrically converting image information obtained from optically reading an original image, line by line, and outputting an image signal, said photoelectrically converting means having optically shielding means provided at a portion thereof (see Fig. 10; col. 4, lines 43-46);

black shading correction means (30) for correcting the image signal using black reference level, the black reference level being obtained from the portion of the photoelectrically converting means for each line during an operation of the reading of the original image (see Figs. 9-11; col. 6, lines 52-58);

wherein the black reference level used by the black shading correcting means for each line is obtained using black reference values, each of the black reference values being data of the portion of the photoelectrically converting means for a respective one of a plurality of lines (col. 6, lines 52-58 and col. 9, lines 17-25);

wherein the black reference level is a moving average of the black reference values (see col. 9, lines 17-25, in which moving average of preceding line and a newly obtained line is shown).

Regarding claim 6, the black reference for a respective line is an average of pixel values in a main scan direction (Fig. 10), the moving average being obtained from moving-averaging, in a sub-scan direction (i.e., a current line and a preceding line in vertical scanning), the black reference values (see col. 6, lines 52-58; col. 9, lines 17-25).

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Regarding claim 7, the claimed limitations are analyzed with respect to claim 5, wherein the black reference level for each line is obtained from moving-averaging the black reference values for the plurality of lines (a current line and a preceding line).

Regarding claim 13, the claimed limitations are analyzed with respect to claim 5.

Regarding claim 14, the claimed limitations are analyzed with respect to claim 6.

Regarding claim 15, the claimed limitations are analyzed with respect to claim 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ide et al (US 6,304,292) in view of Irie et al (US 5,644,409).

Regarding claim 8, Ide discloses that the plurality of lines are the current line and a preceding line (col. 9, lines 17-22). Ide does not teach the plurality of lines comprising a current

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line and preceding lines. However, Irie teaches that, in setting black reference value by averaging data obtained from an image sensor (26), it is preferable to incorporate not only data corresponding to one line but also data corresponding to a plurality of predetermined lines, for example, eight lines by the line CCD 26. The reason for this is that the black reference value is stabilized using the average value of the line data (see col. 9, lines 52-60).

Therefore, it would have been obvious to one of ordinary skill in the art to expand the teaching of Ide from calculating the black reference level for each line from moving average of two lines to moving averaging of several lines including the current line and preceding lines so as to stabilize the black reference level.

Regarding claim 16, the claimed limitations are analyzed with respect to claim 8.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

NT.



ANDREW CHRISTENSEN
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